

**Notice of Allowability**

Application No.

10/728,760

Examiner

Wilson Lee

Applicant(s)

CHOU ET AL.

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/8/03.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ The drawings filed on 08 December 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_



Wilson Lee  
Primary Examiner  
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**Allowable subject matter**

Claims 1-9 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art neither discloses nor suggests the following limitations, in the remaining elements disclosed in claim 1:

- a voltage conversion unit, for receiving a high-voltage arc discharge signal released from said high-voltage output area and converting the high-voltage arc discharge signal into a low-voltage arc discharge signal;
- a filter unit, for receiving the low-voltage arc discharge signal of said voltage conversion unit and determining a potential and filtering an abnormal frequency signal;
- a rectify unit, for receiving said abnormal frequency signal of the filter unit, and outputting an arc wave clutter after performing the rectification;
- a touch control unit, for detecting the arc wave clutter and outputting a trigger signal to stop the operation of one selected from the group of the control unit and the driving unit to prevent the arc discharge effect.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Moo et al. (6,515,431) discloses a multi-lamp protection circuit comprising a plurality of abnormality detect circuits for detecting abnormalities from the lamp circuits but fails to disclose any voltage conversion unit for receiving a high voltage arc discharge and converting it into low-voltage arc discharge signal, and a filter unit for receiving the low voltage arc discharge signal of the voltage conversion unit and determining a potential and filtering an abnormal frequency signal, a rectify unit for receiving the abnormal frequency signal of the filter unit, and outputting an arc wave clutter after performing the rectification.

Bergman et al. (5,952,794) discloses a lamp circuit for detecting arc instabilities comprising voltage sensor for detecting lamp voltage, a voltage reducer for outputting a reduced voltage to a rectifier, wherein rectifier outputs rectified signal to a low-pass filter, a A/D converter for converting analog voltage signal to digital signal, wherein the digital signal controls the half-bridge driver for driving the inverter. However, Bergman fails to disclose a filter unit for receiving the low voltage arc discharge signal of the voltage conversion unit and determining a potential and filtering an abnormal frequency signal, a rectify unit for receiving the abnormal frequency signal of the filter unit, and outputting an arc wave clutter after performing the rectification.

Chang et al. (5,781,418) discloses a switching scheme having a voltage-FED inverter comprising a current sensing for sensing the load current and outputting a

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signal to a high-pass filter. Chang fails to disclose a voltage conversion unit for receiving a high voltage arc discharge signal and converting it into low-voltage arc discharge signal, a filter unit for receiving the low voltage arc discharge signal of the voltage conversion unit and determining a potential and filtering an abnormal frequency signal, a rectify unit for receiving the abnormal frequency signal of the filter unit, and outputting an arc wave clutter after performing the rectification.

The above cited references fails to disclose the claimed invention. Proper motivation is not found in any reference for combining references to disclose the claimed limitations.

### **Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Wilson Lee", is written over a horizontal line.

Wilson Lee  
Primary Examiner  
U.S. Patent & Trademark Office

1/24/05